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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,418	12/31/2003	Martin Theriault	Serie 6389	4643

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EXAMINER	
LU, JIPING	

ART UNIT	PAPER NUMBER
3749	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

NT

Office Action Summary	Application No.	Applicant(s)	
	10/750,418	THERIAULT, MARTIN	
	Examiner	Art Unit	
	Jiping Lu	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 9/5/06.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1,3-9,11-15,17,18 and 20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1,3-9,11-15,17,18 and 20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In view of the Appeal Brief filed on 9/5/2006, PROSECUTION IS HEREBY REOPENED. New grounds rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

STEVE MCALLISTER
SUPERVISORY PATENT EXAMINER

Steve McAllister

SPE of Art Unit 3749

Allowable Subject Matter

2. The indicated allowability of claim 13 is withdrawn in view of the newly discovered reference(s) to McGuire et al. (U. S. Pat. 7,022,283). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3, 7-9, 13, 15, 17 are rejected under 35 U.S.C. 102(e) as being anticipated by McGuire et al. (U. S. Pat. 7,022,283).

For claims 1, 3, 7-9, McGuire et al. shows a cabinet 401 having an enclosed interior space 402 for storing surface mount devices 406 comprising a nitrogen generator 46 associated with said cabinet and transportable therewith, means 414, 64 (see Fig. 4) to receive a supply of compressed air communicating with said nitrogen generator 46 and means 410,412 to direct a dry gas stream from said nitrogen generator 46 into the interior of the said cabinet 401 which are arranges same as claimed. The humidity in the interior space of the cabinet is controlled (col. 26, line 26 to col. 27, line 12). The nitrogen generator comprises a membrane 100 capable of separating air to form a concentrated nitrogen gas stream (col. 25, lines 31-36). The nitrogen generator comprises a pressure swing adsorption system 70 capable of adsorbing one or more

components of air and form a concentrated nitrogen gas stream (col. 12, line 66 to col. 13, line 30). A desiccator is also provided (see col. 13, line 29).

For claim 13, McGuire et al. shows a cabinet 401 having an enclosed interior space 402 for storing surface mount devices 406 comprising a desiccator (col. 13, line 29), a nitrogen generator 70 or both associated with said cabinet and transportable therewith, means 414, 64 (see Fig. 4) to receive a supply of compressed air communicating with said desiccator (within 66) or said nitrogen generator 70 or both, and a storage means 76 for storing said dry gas stream from said desiccator 66, said nitrogen generator 70 or both and means 410,412 to direct a dry gas stream from said storage means 76 into the interior of the said cabinet. The humidity in the interior space of the cabinet is controlled (col. 26, line 26 to col. 27, line 12).

For claims 15, McGuire et al. shows a method of storing surface mount devices 406 in the interior of a cabinet 401 comprising directing a supply of compressed air to a nitrogen generator 66, 70 associated with said cabinet and transportable therewith, forming a dry nitrogen gas stream from said nitrogen generator 66,70 and directing said dry nitrogen stream into the interior of said cabinet same as claimed. The humidity in the interior space of the cabinet is controlled (col. 26, line 26 to col. 27, line 12). For claim 17, the dry nitrogen gas stream is formed by membrane separation of said compressed air stream by said nitrogen generator (col. 25, lines 31-36).

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 6, 11, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGuire et al. (U. S. Pat. 7,022,283).

With regard to claim 6, McGuire et al. discloses the claimed invention except for a plurality of membranes. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cabinet of McGuire et al. to include a plurality of membranes in order to obtain multiple result, since it has been held that mere duplication of the essential working parts of a device involve only routine skill in the art. In re Harza, 274 F. 2d 669, 124 USPQ 378 (CCPA 1960). With regard to claims 11 and 20, McGuire et al. discloses the claimed invention except for the nitrogen generator is an integral part of the cabinet. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the nitrogen generator integral with the cabinet in order to form a one piece article, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. In re Larson, 144 USPQ 347,349 (CCPA 1965). With regard to claim 18, McGuire et al. discloses the claimed invention except for the relative humidity in the interior of the cabinet is maintained at 5% or less. It would have been an obvious matter of design choice to design the relative humidity in the interior of the cabinet of McGuire et al. at any desired percentage level in order to obtain the optimum result or pursue an intended use since applicant has not disclosed that the claimed 5% or less solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in the art and it appears that the claimed feature does not distinguish the invention over similar features in the prior art. Moreover, it has been held that where the general

conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

7. Claims 4-5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGuire et al. (U. S. Pat. 7,022,283) in view of Barbe et al. (U. S. Pat. 5,439,507).

The cabinet of McGuire et al. as above includes all that is recited in claims 4-5 and 12 except for a hollow fiber polymeric membrane and a flow controller. Barbe et al. teach that a hollow fiber membrane nitrogen generator is generally formed from a polymeric material (col. 9, lines 66-68). Barbe et al. also teach a flow controller for controlling the flow rate of the source of high purity compressed nitrogen gas (col. 4, lines22-45). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the nitrogen generator 46 of McGuire et al to include a hollow fiber polymeric membrane as taught by Barbe et al. in order to more effectively separate air to form concentrated nitrogen gas and to further modify the cabinet of McGuire et al. to include a flow controller as taught by Barbe et al. in order to control the flow rate of the high purity compressed nitrogen gas supplied to the cabinet.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over McGuire et al. (U. S. Pat. 7,022,283) in view of Frey et al. (U. S. Pat. 4,439,213).

The cabinet of McGuire et al. as above includes all that is recited in claim 14 except for a filter to remove particulates from the compressed air. Frey et al. teaches a concept of using a filter 18 for removing particulates from the compressed air in a nitrogen generation system same as claimed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cabinet of McGuire et al. to include a filter as taught by Frey et al. in order to remove particulates from the compressed air.

9. Claims 1, 7-9, 11-12, 14, 15, 18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberson, Jr. et al. (U. S. Pat 6,221,163) to in view of Bosher et al. (U. S. Pat. 6,615,908).

Roberson, Jr. et al. teach a transportable (col. 1, line 17) apparatus and method of its use comprising cabinet 12 having an enclosed interior space (col. 4, line 15 and Figure 1a), a desiccator 20 to form a dry air stream (col. 4, line 33-35), means to receive a supply of compressed air (col. 4, line 18-20), and means to direct the dry gas stream from desiccator 20 to the interior of cabinet 12 to maintain a low humidity environment in the interior space (col. 5, line 18-28). Regarding claims 11 and 20, cabinet 12 is mounted to the base housing desiccator 20 (col. 4, line 15-17). It is deemed that the term "mounted" meets the claimed limitation of "integral" since it has been held that the term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding. *In re Hotte*, 177 USPQ 326, 328 (CCPA 1973). Regarding claim 12, flow control valve 21 varies the volume of the dry gas stream entering cabinet 12 (col. 4, line 45-49). Regarding claim 14, filter 42 removes particulates from the air stream (col. 5, line 3-6). Regarding claim 18, the humidity of the interior is maintained at 0.1% (col. 5, line 23-25). Roberson, Jr. et al. teach a source of compressed nitrogen (col. 4, line 18-23) and supplying compressed nitrogen to desiccator 20 (col. 4, line 18-20), but Roberson, Jr. et al. does not teach generating the nitrogen. Bosher et al. teach a system and method of its use similar to that taught by Roberson, Jr. et al. comprising supplying nitrogen (col. 12, line 20) and utilizing desiccant elements (col. 13, line 65- col. 4, line 2) for controlling the humidity within a cabinet (col. 4, line 7-8; col. 12, line 1-2) that can be used to store "items requiring a controlled temperature" (col. 1, line 39-40). In addition to

having these characteristics in common with the apparatus and method taught by Roberson, Jr. et al., Bosher et al. furthermore teach generating the nitrogen that is supplied to the cabinet (col. 13, line 27-34). Regarding claims 7 and 8, Bosher et al. teach utilizing either a hollow fiber membrane or pressure swing adsorption system nitrogen generator (col. 13, line 33-34). As Bosher et al. teach having a nitrogen generator in communication with a cabinet is an effective option to control the atmosphere of the cabinet (col. 13, line 27-34), it would have been obvious to one of ordinary skill in the art to modify the nitrogen supply of Roberson, Jr. et al. with the nitrogen generator of Bosher et al.

10. Claims 3-6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberson, Jr. et al. (U. S. Pat 6,221,163) to in view of Bosher et al. (U. S. Pat. 6,615,908) as applied to claim 3 above, and further in view of Barbe et al. (U. S. Pat. 5,439,507).

The cabinet of Roberson, Jr. et al. as modified by Bosher et al. as above includes all that is recited in claims 3-6 and 17 except for the detail of the membrane nitrogen generator (col. 13, ln. 33-34) used in their apparatus. Regarding claims 3 and 17, Barbe et al. teach that a membrane nitrogen generator utilizes a membrane to separate air and form a dry nitrogen gas stream from a source of compressed gas (col. 3, line 3-22). Regarding claims 4 and 5, Barbe et al. teach that a hollow fiber membrane nitrogen generator is generally formed from a polymeric material (col. 9, ln. 66-68). As Bosher et al. are silent as to details about the membrane nitrogen generator (col. 13, line 33-34) used in their apparatus, but Barbe et al. teach that the limitations of claims 3-5 and 17 are typical characteristics of a hollow fiber membrane nitrogen generator, it would have been obvious to one of ordinary skill in the art to use a membrane nitrogen generator having the limitations taught by Barbe et al. as the membrane nitrogen generator taught by

Bosher et al. Regarding claim 6, Bosher et al. do not teach a plurality of membranes. However, such a modification would have been obvious to one of ordinary skill in the art since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Double Patenting

11. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

12. Claims 1, 3-9, 11-15, 17-18, 20 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-20 of copending Application No. 11/559,730. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEVEN B. MCALLISTER can be reached on 571 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jiping Lu
Primary Examiner
Art Unit 3749

J. L.